REMARKS

Claims 1-12 are rejected under 35 U.S.C 101 because the method of detecting a data structure does not present a concrete tangible result.

Regarding claims 1-12, applicant respectively disagrees with the Examiner and insists that these claims indeed constitute a concrete tangible result according to that defined in MPEP 2106 IV. The resulting actions of that produced through claims 1-12 have real-world consequences in the realm of optical storage reading/recording, which therefore must be induced through an inherent real-world result.

Applicant points out the applied subject matter is particularly stated in the limitations of independent claims 1 and 7 as "generating merging bits according to the number of leading zeros to thereby keep an average potential of the bits of data output from the eight-to-fourteen modulator near a DC potential". As is described in the prior art section of the original specification (see paragraph [0005]), keeping an average potential of the NRZ of the 14 bits near the DC potential is a procedure necessary while complying with the run-length rule according to the Red Book standard for CD data and related optical storage devices. Not complying with this standard would violate the run-length standard, which may render the optical storage device incompatible or unreadable. This consequence is understood by those familiar in the related art.

To respond specifically to the Examiner's remarks, the Examiner has firstly asserted that the above claims are not concrete. However, MPEP 2106 IV defines a concrete result as "*the process must have a result that can be substantially repeatable (emphasis added) or the process must substantially produce the same result again*". Claims 1 and 7 outline procedural steps for a method of processing recovered data, which inherently demonstrate how to achieve the result of "*keeping an average potential of the bits of data output from the eight-to-fourteen modulator near DC potential*". The process steps and result have a

cause-effect relation, which is supported in the original specification. When the steps are applied, the resulting limitation above is produced. The resulting goals of claims 1 and 7 are therefore clearly repeatable and expected when the procedural steps are applied.

The Examiner has additionally stated that the method is not tangible. Under MPEP 2106 IV however, the definition of tangible states "*the process claim must set forth a practical application of that judicial exception to produce a real-world result*". For reasons described above, the application of claims 1 and 7 produce a real-world result of generating merging bits for keeping the average potential of the NRZ of the bits near the DC potential and in compliance with the NRZ data format according to the Red book standard for CD data. Non-compliance would violate the recommended Red book audio format and could render the CD data/optical storage device unreadable. Therefore, not performing "keeping an average potential of the bits of data output from the eight-to-fourteen modulator near DC potential" according to the limitations of claims 1 and 7 possesses real-world consequences of an unreadable CD / optical storage device. This real-world consequence must clearly be causally related to a real-world result. Specifically, generating merging bits to thereby keep an average potential of the bits of data output from the eight-to-fourteen modulator near a DC potential as is claimed in claims 1 and 7 has a real-world result of creating a valid readable CD / optical storage device.

Finally, the Examiner has also suggested that claims 1 and 7 are solely mathematical operations that do not constitute a statutory process. Although the above claims do involve mathematical operations, they are applied towards an inherent function in CD data/optical storage devices, and are not solely mathematical. The mathematical operations are used in a process for "*keeping an average potential of the bits of data output from the eight-to-fourteen modulator near DC potential*", which is already described above as a requirement of the NRZ format for CD data.

In light of the reasons provided above, applicant asserts that the limitations set forth in independent claims 1 and 7 present concrete tangible results, which additionally have real-world implications when applied to the claimed subject matter. Reconsideration for the allowance of claims 1 and 7 is respectfully requested.

Additionally, claims 2-6 and 8-12 are dependent upon claims 1 and 7 respectively. Should allowances be made for claims 1 and 7, allowances for claims 2-6 and 8-12 should also be made as being dependent on the allowable subject matter of claims 1 and 7.

Allowable Subject Matter

Claims 13-24 have been found allowable by the Examiner in the prior office action. Applicant would like to maintain allowance of these claims without prejudice for future office action responses.

Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

Sincerely yours,

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Date: 02/27/2007

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